

TANAOCHELES STENOCHILUS, A NEW GENUS AND
SPECIES OF CRAB FROM GUAM, MARIANA ISLANDS
(BRACHYURA: XANTHIDAE)

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Abstract.—A new xanthid crab, *Tanaocheles stenochilus*, described from Apra Harbor, Guam, Mariana Islands, is the type-species of a new genus of crab which lives in association with the scleractinian coral *Leptoseris gardineri*.

Three specimens of the xanthid crab subfamily Trapeziinae were collected among colonies of the scleractinian coral *Leptoseris gardineri* van der Horst, 1921, at moderate depth (27 m) from Apra Harbor, Guam. These specimens are not referable to any of the known genera of the subfamily and are described herein as new.

Crabs were measured to the nearest 0.1 mm with dial calipers. Measurements are given as carapace length \times carapace width. Specimens are deposited in the National Museum of Natural History, Smithsonian Institution (USNM) and the Allan Hancock Foundation (AHF).

Family Xanthidae MacLeay, 1838

Subfamily Trapeziinae A. Milne Edwards, 1862

Tanaocheles, new genus

Diagnosis.—Carapace wider than long, convex in both directions; posterolateral border longer than anterolateral border, latter with spines. Eye large, not wholly contained within cuplike orbit. Front broad, sinuous, without teeth or spines; carapace sharply deflected near frontal margin. Chelipeds unequal, but morphologically similar, very long, relatively thin; fingers of chelae short, spoon-tipped. Walking legs long, thin; dactylus of each long, with many spiniform and stout setae, claw bladelike. Abdomen of male with 7 distinct segments.

Etymology.—From the Greek “tanao,” outstretched, in combination with the Greek “chele,” claw; in reference to the very long chelipeds characteristic of this genus. Gender feminine.

Type-species.—*Tanaocheles stenochilus*, new species, by monotypy.

Remarks.—The nine genera of the Trapeziinae can be separated into two groups on the basis of the number of distinct segments of the male abdomen. *Tanaocheles* is included among the genera in which the male abdomen has seven distinct segments. These genera are *Tetralia* Dana, 1851; *Ectaeesthesius* Rathbun, 1898; *Calocarcinus* Calman, 1909; and *Philippicarcinus* Garth and Kim, 1983. *Tanaocheles* and *Philippicarcinus* both differ from the other three genera by having approximately hexagonal carapace outlines. *Tanaocheles* differs from all four genera by having long, very slender chelipeds, with meri much longer than broad, and spoon-tipped fingers.

Tanaocheles stenochilus, new species

Fig. 1

Holotype.—Male, 4.5 mm × 6.2 mm; Apra Harbor (Western Shoals), Guam, Mariana Islands; on *Leptoseria gardineri*; 27 m; 23 Jul 1981; Coll. V. Tyndzik; USNM 210636.

Paratypes.—Female, 5.6 mm × 7.3 mm; USNM 210637. Male, 3.2 mm × 4.3 mm; AHF 819. Both same collection data as holotype.

Description.—Carapace wider than long; smooth, regions poorly marked, with a few scattered plumose setae. Lateral margins rounded; spineless posterolateral part about twice as long as anterolateral part; anterolateral part bearing two spines, posterior sharp, anterior blunt, rounded. Orbital margin raised. Front broad, slightly sinuous, without median notch; carapace sharply deflected at frontal margin then produced anteriorly forming narrow, flattened rim. Inner suborbital angle not meeting front, second antenna not excluded from orbit.

Chelipeds unequal, very long, thin; merus and carpus of both morphologically similar, major thicker. Merus long, smooth, rounded, with no distinct margins; with 3 sharp anterior spines, 2 at proximal end, one near distal end; no posterior spines. Carpus smooth, with a sharp or rounded anterior spine. Manus long, rounded, without spines. Major manus gradually thickening distally, much thicker than minor; fingers short, dark, spoon-tipped; outer edges of occlusal surfaces with 3 broad, sharply edged teeth, inner edges rounded, without teeth, leaving space when fingers close. Minor manus long, thin, of uniform thickness; fingers short, spoon-tipped, occlusal surfaces morphologically similar to those of major, but with 2 low teeth. Carpus and manus with interlocking knobs on upper and lower surfaces at joint.

Walking legs long, thin, with scattered long plumose and nonplumose setae. Merus of legs 1–3 with anterior margin minutely denticulate, sometimes with spines; merus of leg 4 smooth. Carpus of legs 1–4 with 2, 2, 1, 0 anterodistal spines respectively; anterodistal margin produced into knob fitting into socket on propodus. Propodus long, thickening slightly distally. Dactylus long, claw broad, bladelikey; anterior margin with 2 rows of stout, spiniform setae, distal setae largest; posterior margin lined with many long, spiniform and short, stout setae. Propodus-dactylus joint with locking mechanism on posterior surface; distal margin of propodus produced into broad flange fitting into groove made by raised knob on proximal part of dactylus.

Color notes.—Carapace and chelipeds reddish blond, fingers of chelae dark brown. Walking legs white with scattered orange blotches and spots or broken orange lines.

Remarks.—The female paratype differs from the holotype by having a third small, sharp spine immediately posterior to the large spine on the anterolateral border of the carapace and by having 3 sharp proximal spines on the anterior surface of the merus of the cheliped. The male paratype has a sharp anterior spine on the anterolateral border of the carapace instead of a blunt spine, and a proximal spine on the posterior surface of the merus of the cheliped.

Etymology.—From the Greek “stenos,” narrow, in combination with the Greek “cheilos,” a lip or rim; in reference to the narrow rim at the frontal margin of the carapace.

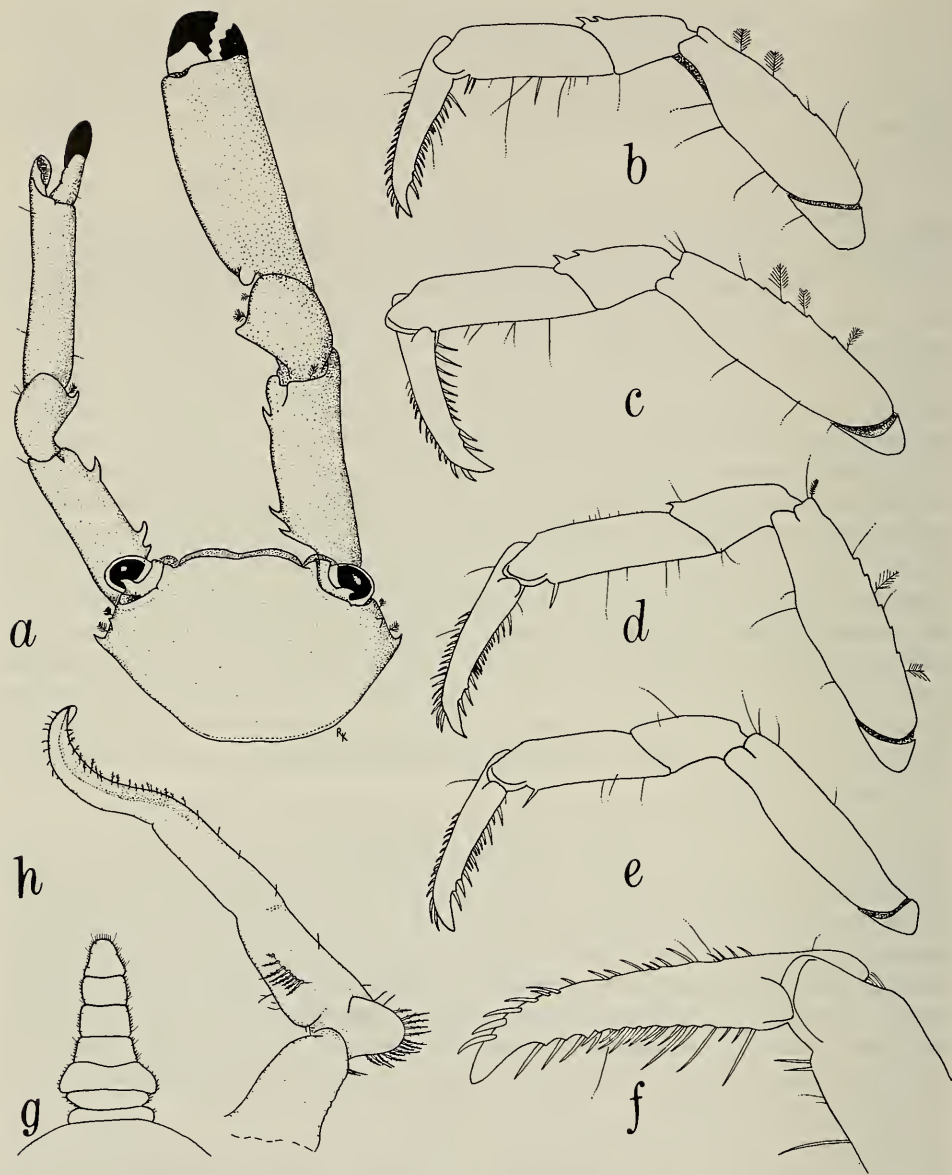


Fig. 1. *Tanaocheles stenochilus*, male holotype, carapace length 4.5 mm: a, Carapace and chelipeds; b-e, Walking legs 1-4; f, Dactylus of leg 1; g, Abdomen; h, Gonopod. b-e, g slightly enlarged; f, h enlarged.

Habitat.—Found free-living in association with the living coral *Leptoseris gardineri*.

Distribution.—At present known only from the type-locality.

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